Strategy Research Project

IMPROVING THE CHEMICAL BIOLOGICAL DEFENSE PROGRAM

BY

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The Department of Defense Chemical Biological Defense Program (CBDP) is a key component of a comprehensive national strategy to counter the threat of chemical and biological weapons as outlined in the 2002 National Strategy to Combat Weapons of Mass Destruction (CWMD). This national strategy is based on three principal pillars: 1) Counterproliferation to Combat Weapons of Mass Destruction Use, 2) Strengthen Nonproliferation to Combat Weapons of Mass Destruction Proliferation, and 3) Consequence Management to Respond to WMD Use. The CBDP focuses on the first and third pillars of this strategy. The CBDP facilitates capabilities development for the Combating WMD mission areas of passive defense, consequence management, interdiction, and elimination operations. The CBDP supports strategic initiatives to improve chemical, biological, radiological, and nuclear (CBRN) defense preparedness, to reduce risks to the Warfighter, and to field the appropriate capabilities for sustained military operations with minimal degradation in combat effectiveness caused by CBRN hazards. This Strategy Research Paper (SRP) addresses CBDP improvements that the Department of Defense can implement with minimal difficulty and at no significant cost.

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USAWC STRATEGY RESEARCH PROJECT

IMPROVING THE CHEMICAL BIOLOGICAL DEFENSE PROGRAM

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ABSTRACT

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IMPROVING THE CHEMICAL BIOLOGICAL DEFENSE PROGRAM

> … unless the world community acts decisively and with great urgency, it is more likely than not that a terrorist attack will involve a weapon of mass destruction by 2013…
>
> —Commission on the Prevention of WMD Proliferation and Terrorism[1]

The U.S. Armed Forces continue to operate across a wide-range of military operations from conventional warfare to irregular warfare to homeland defense. One threat that remains a constant across the range of operations is the threat from weapons of mass destruction (WMD). A number of terrorist groups openly seek to obtain and use WMD capabilities while nation states who oppose the U.S. continue to pursue more destructive capacity along with the associated methods for delivery. For instance, Iran overtly seeks nuclear weapons, while North Korea — already in possession of nuclear weapons — seeks longer range Taepo'-dong-2 missiles. Of all the forms of WMD, chemical and biological weapons are among the cheapest, easiest, and quickest to produce and deploy with the likelihood for catastrophic effect.[2] Military forces must be able to deal with a full spectrum of threats and must be able to operate unconstrained by WMD.[3] The Department of Defense (DoD) must invest in capabilities to defend against and recover from chemical, biological, radiological, and nuclear (CBRN) attacks or we will place the Armed Forces at unnecessary risk of not being able to accomplish our national military strategy.

The Chemical, Biological, Defense Program (CBDP) supports a comprehensive strategic framework to improve CBRN defense preparedness, to reduce risks to the Warfighter, and to field the appropriate capabilities for sustained military operations with minimum degradation in combat effectiveness caused by CBRN hazards.[4] Before

2002, the CBDP designated capabilities that were solely intended for passive defense and consequence management purposes. In the 2002 National Security Strategy for Combating Weapons of Mass Destruction (NSSCWMD), the Bush administration refocused U.S. efforts to deal with proliferating states and non-state actors and unequivocally acknowledged the prospect of preemption while establishing the three pillars of Combating WMD — nonproliferation, counterproliferation, and consequence management.[5] The CBDP provides CBRN defense capabilities in support of the CWMD pillars of counterproliferation and consequence management. This new framework and hard-line government-wide stance, designed to stop or at least slow the proliferation of WMD, broadened the scope of the CBDP to include mission areas such as WMD interdiction and elimination. The CBDP enables the military and other government agencies to protect themselves or recover from the effects of WMD.

The CBDP is a complex DoD program with considerable governance challenges. This SRP will describe the WMD strategic environment, explain the CBDP background, address the extant CBDP structure, identify the problem areas associated with the Program, and recommend improvements the DoD can implement with minimal difficulty and at no significant cost.

Strategic Environment

Before the turn of the century, the perceived threat was military in nature, posed by “classic” CBRN warfare weapons — chemical agents similar to nerve, mustard, or blister and biological agents similar to anthrax, plague, or botulism — delivered by artillery, bombs, and rockets. At present, the threat also includes CBRN industrial materials delivered by asymmetric means, reminiscent of the chlorine attacks against

US forces and the Iraqi populace. In the past, the military's primary concern was to avoid CBRN contamination and, if unavoidable, to recover from its effects. Today, the CBRN defense mission necessitates the elimination of an adversary's WMD capability by seeking it out, securing it, assessing it, exploiting it, and then remediating the adversary's capability. Other government agencies, non-governmental agencies, civil authorities and noncombatants are new actors that the military must consider during mission planning and execution. In the past, these groups rarely entered into the military's CBRN defense equation.

The strategic environment widened the range of CBRN defense capabilities necessary to execute new mission areas like WMD-elimination and interdiction. The strategic environment also demands an agile strategic military mindset to execute these new mission areas. Joint doctrine states that:

> The proliferation of WMD is a global problem that routinely crosses combatant command's geographic boundaries. The increasing availability of highly destructive technology combined with a variety of weapons and means of delivery from both state and non-state actors greatly exacerbates the [WMD proliferation] problem.[6]

To contend with the changing strategic environment and the new construct for finding and eliminating an adversary's WMD weapons and programs, the 2006 Quadrennial Defense Review directed the Army to make the 20th Support Command (Chemical, Biological; Radiological, Nuclear, and High Yield Explosive - CBRNE) capable of deploying rapidly and commanding and controlling WMD-Elimination operations.[7] The 20th SUPCOM (CBRNE) reached initial operating capability (IOC) in September 2007 and will reach full operational capability in September 2009 to serve as a Joint WMD-Elimination Headquarters. The CBDP now incorporates new and more rigorous capabilities development to support the 20th SUPCOM's WMD-elimination

mission, including mobile analytical laboratories and capabilities to remediate nuclear infrastructure.

In summary, the joint force needs a new suite of capabilities to detect and identify the full range of CBRN threats and support the Warfighter's emerging needs across the mission areas supported by the CBDP. It is important to appreciate how the efforts of the Department of Defense evolved over time to produce CBRN defense capabilities and to understand why the CBDP is organized and operates as it does today in order to comprehend the problems associated with the CBDP.

Program Background

Prior to 1994, each of the Services spent funds for research, development, testing and evaluation (RDT&E) and procurement for CBRN defense capabilities. The products produced by the Services were quite similar but were not interoperable. For example, the Services used their program dollars to design, test, and procure Service-specific protective masks that performed the same function but had divergent sustainment requirements.

The 1994 National Defense Authorization Act directed the Secretary of Defense to consolidate, coordinate, and integrate the chemical and biological defense requirements and programs of the Military Departments.[8] Essentially, Congress sought to eliminate redundant programs and to focus funding on CBRN priorities and enhanced readiness. Based on Congress' order, DoD initiated the CBDP in 1994 and oversaw the chemical and biological defense requirements by using a "Joint Service Agreement for Joint Nuclear, Biological and Chemical Defense Management."[9]

Between 1996 and 2001, the Government Accounting Office (GAO), the Defense Science Board (DSB), and the Congress criticized the execution of the Chemical Biological Defense Program. A March 1996 GAO report criticized tactical units' ability to survive and sustain combat operations in a CBRN environment because of a lack of CBRN defense equipment, insufficient consumables, deficient training, and lack of leader's interest.[10] Shortly after the 9/11 terrorist attacks, Congress lamented:

> The current management structure of the [CBDP] is deeply flawed. The multitude of bureaucratic layers and ad hoc organizations created for this program have led to bureaucratic infighting among the Services and chronic inaction on important questions pertaining to requirements generation, funding allocations, program execution, and funds management. The Department must make it a priority to redesign and streamline the organizations managing the Chemical and Biological Defense Program.[11]

In September 2001, the Vice Chief of Staff of the Army — exercising the Army's role as Executive Agent for the CBDP — requested the Under Secretary of Defense for Acquisition Technology and Logistics (USD[AT&L]) to explore process changes and determine if Services and Combatant and Component Commanders were being adequately represented in the CBRN requirements generation process.[12] The USD(AT&L) established an OSD-led task force to review the CBDP. As a result of the OSD task force findings, the Joint Requirements Oversight Council (JROC) approved a decision to stand up a Joint Requirements Office for CBRN Defense (JRO-CBRND) in the J-8 Staff Directorate, established a Joint Program Executive Office for Chemical and Biological Defense (JPEO-CBD), among other reforms.[13]

In 2002, the National Security Council released the National Strategy to Combat Weapons of Mass Destruction (NSCWMD) which offered an effective approach and new framework to combat WMD. The NSCWMD has three principal pillars to enhance

the protection of our citizens, forces, and our allies: Counterproliferation, Nonproliferation, and Consequence Management.[14]

In response to evolving requirements, the USD(AT&L) issued a detailed "Implementation Plan for the Management of the Chemical and Biological Defense Program," dated 22 April 2003. This Implementation Plan defined roles and responsibilities for management of the CBDP, established the CBDP in its current form, and led to in a major advancement in program integration and governance. The Implementation Plan established a CBDP Enterprise consisting of all the organizations, people, facilities, and their associated processes responsible for producing CBRN defense capabilities for the user in the field.

The Secretary of Defense (SECDEF) designated United States Strategic Command (USSTRATCOM) as the lead combatant command for integrating and synchronizing DoD efforts to Combat Weapons of Mass Destruction in 2005.[15]

In early 2006, the DoD published the National Military Strategy to Combat Weapons of Mass Destruction (NMSCWMD) which specified eight mission areas. Each of the eight mission areas are subordinate to and directly support the three pillars of the National Strategy for Combating WMD: Offensive Operations, Elimination Operations, Interdiction Operations, Active Defense, Passive Defense, WMD Consequence Management, Security Cooperation and Partnership Activities, and Threat Reduction and Cooperation.[16] The CBDP facilitates the development of capabilities in the Combating WMD mission areas of passive defense, consequence management, interdiction, and elimination operations.[17] It is important to understand the structure of today's CBDP; how the Program establishes, collects, and uses the CBRN defense

priorities; how the Program develops requirements documents; and the roles and responsibilities of various key players who all are “members” of the Chemical and Biological Defense Program Enterprise.

Program Structure, Roles, and Responsibilities

There are three key DoD processes that must work in concert to deliver the capabilities required by the user in the field — the requirements process; the acquisition process; and the Planning Programming, Budgeting, and Execution (PPBE) process.[18] DoD designed the CBDP to facilitate each of these processes. The J-8 Joint Requirements Office represents the Combatant Commands and Services by ensuring their capability needs get developed. The JRO generates requirements documents in accordance with the Joint Capabilities Integration Development System (JCIDS). The requirements process supports the acquisition process by providing validated capabilities and associated performance criteria to use as a basis for acquiring the correct material systems or solutions[19]. The Joint Program Executive Office for Chemical and Biological Defense is the CBDP’s principal advocate for CBRN detection, as well as vaccine and medical diagnostic acquisition efforts. The JPEO-CBD executes the defense acquisition system for the CBDP. The Assistant to the Secretary of Defense for Nuclear and Chemical and Biological Defense program (ATSD[NCB]) exercises oversight of the PPBE processes for the CBDP and allocates funding for the CBDP accounts, then the Defense Threat Reduction Agency (DTRA) manages those funds.[20]

The Office of the Secretary of Defense (OSD) manages the CBDP and periodically updates the Program’s roles and responsibilities in a Department of

Defense Directive (DoDD) 5160.01E.[21] Key players and their specified roles and responsibilities include but are not limited to:

1) J-8 Joint Requirements Office (JRO).

    a. Lead development of the CBDP Program Objective Memorandum (POM) strategy.

    b. Support and facilitate the development of joint and multi-service chemical, biological, radiological, nuclear, defense (CBRND) doctrine, tactics, techniques, and procedures, training and leader development and education.

    c. Coordinate and integrate requirements and capability needs for all DoD CBRND programs, ensuring that Military Service and Combatant Command needs are developed and approved in a prompt and efficient manner.

2) Defense Threat Reduction Agency (DTRA).

    a. Exercise funds management responsibility for the CBDP.

    b. Manage and integrate the Chemical Biological Defense (CBD) science and technology (S&T) programs.[22]

3) Military Departments.

    a. Organize, train, equip, and otherwise prepare their respective forces to combat WMD, means of delivery, and related materials.

    b. Support development of Military Service annexes to joint CBRND capability documents as appropriate.

4) Secretary of the Army.

    a. Serve as DoD Executive Agent for the CBDP.

    b. Coordinate and integrate Research Development Test and Evaluation (RDT&E) and acquisition requirements of the Military Departments for DoD chemical and biological warfare defense programs.

    c. Establish a Joint Program Executive Office for Chemical and Biological Defense (JPEO-CBD), reporting through the Army Acquisition Executive to the Defense Acquisition Executive (DAE); serve as the Joint Service Material Developer and

oversee life-cycle acquisition management for assigned CBRND programs.

d. Establish a Joint Combat Developer for Experimentation for CBRND under the direction and supervision of the Director of the Joint Staff/J-8 JRO-CBRND.[23]

Having identified the CBDP key players and their roles and responsibilities, we should identify how the CBDP establishes it's priorities; how it develops JCIDS requirements; how it details DoD progress to Congress to protect the nation from current and emerging threats posed by WMD; and how USSTRATCOM plays a major role by serving as the lead for integrating and synchronizing DoD's CWMD efforts, but is currently not a key player in the CBDP.

CBRN Joint Priorities. There are twenty-nine CBRN Defense Joint Capabilities which the JRO derives from two of the JRO-sponsored Capabilities Based Assessments (CBAs) — Passive Defense and Consequence Management. A CBA consists of the front-end analysis that identifies the capabilities required to execute a particular mission, the shortfalls in existing systems to deliver those capabilities, and the possible solutions for the capability shortfalls.[24] Table 1 depicts the 2008 CBDP Joint Priorities List (JPL).

The Combatant Commands and Services are the voting members for the development of the CBRN Joint Priorities List. Biennially, the JRO tasks the Combatant Commands and Services to prioritize the twenty-nine CBRND Joint Capability Areas. When the Combatant Commands and Services receive the tasking, they receive a list of the Joint Capability Areas with a broad descriptive paragraph for each associated capability area. These descriptions assist the voters in understanding where and how to prioritize their needs or capability gaps. One of JRO's responsibilities is to coordinate and integrate requirements and capability needs for all DoD CBRND programs by

ensuring the JCIDS front-end analysis is completed to identify the required capabilities across the DOTMLPF domains.

#	Joint Capability Area	#	Joint Capability Area
1.	Chemical Standoff Detection	16.	Battle or Operating Environment Management Analysis
2.	Biological Standoff Detection	17.	Fixed Site Collective Protection
3.	Chemical Point Detection	18.	Equipment Decontamination
4.	Biological Point Detection	19	Fixed Site Decontamination and Restoration
5.	Integrated Early Warning	20.	Biological Therapeutics
6.	Radiological Standoff Detection	21.	Expeditionary Collective Protection
7.	CBRN Reconnaissance	22.	Radiological Prophylaxis
8.	Field Analytics	23.	Medical Diagnostics
9.	Respiratory and Ocular Protection	24.	Chemical Therapeutics
10.	Biological Prophylaxis	25.	Methods of Control
11.	Radiological Point Detection	26	Medical Surveillance
12.	Percutaneous Protection	27.	Radiological Therapeutics
13.	Personal Decontamination	28.	Hazardous Waste Control
14.	Battle or Operating Environment Management Systems	29.	Remains Disposition
15.	Chemical Prophylaxis		

Table 1. 2008 CBDP Joint Priority List

Developing JCIDS Requirements Documents. The JRO writes the requirements documents in support of the acquisition process, consistent with the JPEO-CBD Program Manager's acquisition timeline and in support of the identification of non-material solutions through the development of multi-service and joint doctrine and training for CBRN defense capabilities. The JRO manages the JCIDS review,

validation, and approval process by preparing the documents for review by the lead Functional Capabilities Board (FCB) — more often than not, the Protection FCB — and for validation and approval by the appropriate Milestone Decision Authority (MDA). The MDA's timeline is the principal basis by which the JRO determines its priorities and decides which JCIDS requirements documents to work on.

DoD CBDP Annual Report to Congress. Congress requires DoD to submit an Annual Report on chemical and biological warfare defense.[25] Although the report is not part of the CBDP structure, it is important to know why the DoD reports CBDP progress to Congress in the manner in which they do and how it organizes the Report.

The Assistant Secretary of Defense (Nuclear, Chemical and Biological Defense), (ATSD [NCB]) is responsible for coordinating, developing, and approving the report for DoD.[26] The legislature specifies nine matters to address in the annual report including, "measures taken to ensure the integration of requirements for [CBRN] defense equipment and material among the Armed Forces."[27]

Role of USSTRATCOM. USSTRATCOM is not currently included in the documents that establish the key organizational and managerial aspects of the CBDP. Secretary Rumsfeld assigned USSTRATCOM as the DoD lead for CWMD in 2005 — after DoD published the implementation guidance for the CBDP in 2003. Subsequent amendments to the CBDP Implementation Plan did not identify a CBDP leadership role for USSTRATCOM.

In 2008, USSTRATCOM published a Joint Integrating Concept (JIC) which defined future CWMD capabilities out to 2027. USSTRATCOM then used the JIC, along with information found in other sources — including the Joint Quarterly Readiness

Reviews (JQRR), Integrated Priority Lists (IPL), the annual Counterproliferation Report to Congress (CPRC), and Capabilities Based Assessments (CBA) — to publish a Joint Capabilities Integration Development System (JCIDS) requirements document known as a Joint Capabilities Document (JCD), which identifies a set of capabilities that support a defined mission area such as CWMD.[28] Today, USSTRATCOM develops the Combating WMD priorities which subsume the CBDP priorities developed by the JRO. USSTRATCOM's role in developing the JPL is limited to a biennial vote, just like the other Combatant Commands.

The CBDP has made significant progress in providing Soldiers, Sailors, Airmen, and Marines with the best possible CBRN defense equipment. Nevertheless, DoD can improve the CBDP to make it more accountable to the needs of the Combatant Commands and Services. The next section will address the shortfalls in the CBDP.

Program Problem Areas

Establishing Joint Priorities. The establishment of accurate and practical priorities for the CBDP is an essential component for effectively representing the "customer" — the Combatant Commands and the Services. The Joint Capabilities Integration and Development System (JCIDS) is needs driven[29]; thus the JCIDS requirements documents that the JRO creates should directly satisfy the customer's needs.

The way in which the J-8 JRO collects and then uses the CBDP Joint Priorities List is a current CBDP shortcoming. The twenty-nine capability areas are extremely broad in scope — making their prioritization very arbitrary and indiscriminate. As a voting officer representing the Army's priorities in 2008, I found that rank ordering

twenty-nine items became extraordinarily unsystematic after the top ten capability areas.

Concerning the CBDP JPL process, BG Tom Spoehr declared, “There are overlapping and redundant areas. Once it [CBDP JPL] gets approved it should be the single driver for programs resourced by the Joint Chemical, Biological Defense Program, which includes doctrine and requirements.”[30] BG Spoehr was previously the United States Army CBRN School Commandant; he now serves as the G-8 Director of Integration on the Army Staff.

The Combatant Commands and Services’ priorities should compel all CBDP doctrine, organization, training, material, leadership and education, personnel, and facility (DOTMLPF) decisions. Currently the JPL is not used as the driver of DOTMLPF requirements because the JRO only uses it to justify POM funding recommendations.

The JRO’s prioritization process falls short of setting appropriate requirements generation because the process is too wide-ranging and general. There is no substance beyond a list of twenty-nine core capability areas which are very broad in their scope. As BG Spoehr points out:

> The process used to rack and stack the JPL encourages mediocrity and watered-down solutions. It is staffed and voted on by a wide variety of organizations, including all the geographic and functional combatant commands and the Services — all of which serve to produce results which are often contrary to what is actually needed by the tactical level user. Services have the Title 10 responsibility to train and equip their forces and are in the best position to determine their most critical [CBRN] equipment requirements. CBRN equipment, with some few exceptions, is used by the Service’s tactical elements, not Joint Headquarters. Giving the Services more ability to influence the JPL is critical to being able to deliver necessary equipment.[31]

CBDP JPL voting members understand the strategic tasks and objectives assigned to their particular Combatant Command or Service in the Joint Strategic

Capabilities Plan (JSCP). These voters fundamentally know what capability shortfalls exist based on periodic readiness assessments inherent in the Chairman's Readiness System and other means of readiness reporting,[32] but have no way to communicate which material programs are of upmost importance other than voting on a wide-ranging list of twenty-nine joint capability areas.

For example, the Army's top CBDP priority since 2003 has been a material solution to resolve the shortfall in the ability to perform sensitive site assessments in support of WMD-Elimination operations. The Army wants to field and support a dismounted CBRN reconnaissance suite of equipment in order to detect and identify the full range of CBRN threats. The Army developed extant CBRN detection and protection equipment to counter the traditional CBRN threats previously discussed; however, this equipment is not meeting the needs of the emerging threat. The only way the tactical commander can confirm or deny the presence of a CBRN hazard at a WMD sensitive site is to rely on low-density/ high demand Army CBRN forces with specialized capabilities. The Army's general purpose CBRN units desperately need a set, kit and outfit (SKO) for dismounted CBRN reconnaissance to enhance their ability to execute CBRN sensitive site assessment/ exploitation. One geographic combatant command specifically identified this shortfall in its Integrated Priority List (IPL) comments.[33]

If the Army wants to ensure this CBRN dismounted reconnaissance SKO is ranked number one on the JPL, the voting member must determine which one of the twenty-nine capability areas best represents this SKO. The kit provides a vast array of CBRN point detection capabilities, protects the Soldier with bottled oxygen rather than carbon filtration, and provides personnel decontamination capability. The capabilities

represented by this SKO cross-cut multiple core capability areas like chemical point detection, biological point detection, radiological point detection, CBRN reconnaissance, respiratory and ocular protection, personnel decontamination, among others. If a voting member wants this SKO to be their highest priority on the CBDP JPL, which CBRND priority area should they vote for?

The purpose of identifying CBDP priorities should be to resolve capability gaps by identifying what JCIDS requirement should have the priority of effort. This might be either work already in progress, such as material programs in development, or developing new capabilities which have not yet been identified as programs of record.

Creating JCIDS Requirements Documents. The Program Strategy Guidance for the CBDP is published by the ATSD(NCB) and provides guidance to J-8 for preparation of the CBDP POM Strategy. This guidance is very broad, but does little to indicate whether one acquisition program is more important than another.[34] Currently, the JRO makes the recommendations to distribute funding with no check-or-balance in place to regulate their suggestions other than a broad list of twenty-nine capability areas. The JPL has little impact on guiding the JRO's POM funding recommendations. Additionally, The CBDP requirements generation process is hamstrung by the demands of the acquisition process. The JRO is not staffed with sufficient personnel to fully support the needs of the JPEO-CBD for on-going programs, while simultaneously beginning work on new JCIDS documents that support emerging requirements. According to BG Spoehr, "There is too much requirements work to be done for the JRO to try to write it all."[35] The JRO is overwhelmed in efforts to write requirements documents for material capabilities already in the acquisition pipeline, to draft new

CBRN defense requirements documents generated through the normal assessment and analysis process, and to identify emerging capabilities that are proving useful in the theater of warfare and transitioning them to programs of record.

The Implementation Plan that outlines the management of the CBDP specifies the JRO's responsibility to "coordinate and manage the CBRN defense requirements documents approval process to include approving Service and Combatant Command validated joint requirements documents along with Service/ Combatant Command specific approved annexes as per CJCSI 3170.01 and JROC Memorandum 163-02."[36] This implementation guidance clearly leaves the option open for a Service to create JCIDS documents as long as the JRO validates the requirement and approves the document as a joint capability need. Nevertheless, the JRO continues to be the only source of complete JCIDS requirements documents, asking the Services to simply write the supporting annexes to the JCIDS documents which represent Service specific requirements.[37]

While the JRO does not allow Services to write JCIDS requirements documents, it does allow the Services to write CBRN defense doctrine. The CBDP Implementation Plan assigns the JRO responsibility to support and facilitate the development of joint and multi-service CBRN defense doctrine.[38] The Services write the doctrine with JRO oversight and funding support. As stated previously, the Implementation Plan assigns the JRO similar responsibility for doctrine and material development — "coordinate and manage" material development and "support and facilitate" doctrine development — yet, the JRO chooses to do the material development and delegate doctrine writing.

Colonel Pat Sharon, Deputy Director J-8 JRO maintains:

> The fundamental question is what should the JRO be doing as part of the CBDP enterprise? Should the JRO be generating requirements (born joint) or simply managing the process of JCIDS? Right now, I think we [the JRO] are doing a little of each — we're developing requirements at our level for those issues that emerge from our analytical efforts [Capabilities Based Analysis]; plus, we're managing the JCIDS process for those requirements that get generated by the other stakeholders (Services, Combatant Commands, Defense Agencies).[39]

However, COL Sharon could think of only one case where the JRO accepted and sponsored a JCIDS document written by the Marines and one other instance in 2007 when the JRO granted permission for the Army to draft a requirements document that has yet to be sponsored by the JRO. Concerning the Army sponsored JCIDS document waiting for JRO sponsorship, the Joint Combat Developer, the Program Manager, and the Milestone Decision Authority are all in agreement that the technology has already proven to be a valid need in response to a Central Command (CENTCOM) Joint Urgent Operational Needs Statement (JUONS) and is ready to enter system demonstration.

The JCIDS process clearly identifies that once the JROC approves the results of a CBA — documented in a Joint Capabilities Document (JCD) or Initial Capabilities Document (ICD) — the approved JCD or ICD becomes the basis for further analysis by the Services to identify the most appropriate system(s) to provide the desired capability.[40] As long as the lead-Service runs their JCIDS documents through the JRO for staffing and acceptance, there should be no limitations placed on Service' combat developers to write JCIDS documents.

Moreover, as DoD commitments to Homeland Defense and WMD-Elimination operations expand, the demands for specialized CBRN defense equipment increase—like the specialized CBRN equipment to support the CBRNE Consequence

Management Response Force (CCMRF),[41] or like mobile laboratories for the 20th SUPCOM (CBRNE). This specialized equipment requires exceedingly specific system performance specifications, which, in turn, require more comprehensive testing and acquisition developmental efforts; placing increased demands on the JRO to write exceptionally difficult JCIDS documents.

Not only is the JRO taxed to support the JPEO-CBD with JCIDS documents for programs in the acquisition pipeline, but there is an increasing demand to support emerging requirements for rapid acquisition development for equipment successfully being used in the Global War on Terrorism. The JPEO-CBD expeditiously supports the customer's requests for urgent needs as is evident in the plethora of commercial-off-the-shelf (COTS) CBRN defense and force protection technologies fielded swiftly in support of the War. Examples include a toxic industrial CBRN protection and decontamination equipment (TICPDE) suite and CBRN detection devices that aid explosive ordnance disposal units in identifying munitions with chemical agent fills.

The CBDP is a victim of the DoD-wide predicament to support new rapid acquisition development while sustaining current programmed development. Meanwhile, the JRO is not able to produce JCIDS requirements fast enough to meet the emerging demand. Express fielding of off-the-shelf technologies to the user will continue to outrun the elements of DOTMLPF unless these technological solutions enter the requirements generation process to become Service programs of record. The CBDP will remain in a "rut" if the JRO cannot adequately address the Combatant Commands and Services emerging needs while simultaneously supporting the needs of the acquisition process.

The CBDP Annual Report to Congress Should Focus on the CBRN JPL. As described earlier, Congress directed that nine matters be addressed in the Annual Report to Congress. Congress grants a great deal of autonomy by allowing the DoD to decide how to go about informing Congress on the annual progress of the CBDP. Logically it seems that the DoD would want to tell Congress how the Program is going about meeting the needs of the Combatant Commands and Services. However, a search of the entire 108 pages of the 2008 Annual Report, reveals only one casual mention of the CBRN Joint Priority List — a reference to the fact that biological pretreatments are the highest ranked medical capability on the latest Joint Priority List.[42] Nowhere in the 2008 Report does Congress even encounter the CBRN Defense Joint Priority List. One could equate the CBDP Annual Report to Congress as a civilian corporation's annual report to their stockholders. What successful civilian conglomerate does not identify their strategic priorities or initiatives in their stockholder's report or provide some insight on the priorities and the recent progress made toward accomplishing these priorities? If the JPL is not identified in the Annual Report, how does the DoD indicate progress made toward achieving their priorities?

USSTRATCOM is not involved in the CBDP. The final challenge for the DoD and the CBDP is how to empower USSTRATCOM with a leadership or management role for the CBDP beyond simply being a voting member for the JPL. When the SECDEF designated USSTRATCOM as the DoD's lead integrator and synchronizer of the CWMD mission area in 2005, the CBDP Implementation Plan had been in place since 2003. The three Implementation Plan amendments published since 2003 do not afford a CBDP leadership role to USSTRATCOM. As the DoD lead for CWMD,

USSTRATCOM's role encompasses the mission areas which the CBDP supports with CBRN defense capabilities.

Recommendations to Improve the CBDP

Expand the Joint Priority List Process. DoD should expand the JPL process so the results yield more than a broad list of twenty-nine capability areas that loosely inform the POM construct. Allowing Combatant Commands and Services to vote on the JPL biennially is adequate. A later recommendation suggests that USSTRATCOM should assume a CBDP leadership role and collect the joint priorities instead of the JRO.

Presently, there is no method to justify program funding decisions because JPL voting members do not fully understand which of the twenty-nine capability areas contain the programs in acquisition development — like the specialized equipment discussed earlier such as the mobile analytic laboratory, the dismounted CBRN reconnaissance system, or the new CBRN defense equipment for units identified for CCMRF missions. Currently there is no scheme to catalog where a material program falls on the JPL and no way to identify the level of importance for each program within a category area. The JRO should engage the Military Departments to array the individual material programs in the acquisition process under the relevant JPL category area. The Military Departments should perform this function because they possess the combat developers who are actively engaged with the JPEO-CBDP and the test community on a daily basis for all of the CBDP material programs. The Combatant Commands do not participate in the development of the CBDP material programs and do not possess continuity in the material program's on-going development or status.

The Military Departments should array the CBDP material programs every two years in order to inform each POM-build. By arranging the extant material programs in priority order under each of the JPL category areas, the JRO will have an updated list of programs every two years by which to justify their decisions.

As representatives from the Military Departments gather biennially to array the material programs in the acquisition pipeline, they should include their National Guard and Reserve Component representatives because they have specialized CBRN defense requirements — especially in the Homeland Defense arena. The Service representatives need a mechanism to inform their vote and some criteria by which to evaluate the programs against one another. The following criteria are relevant: the number of capability gaps the program resolves; existing inventory of legacy systems and their operational readiness rate or condition; associated fielding date of the new program; program executability (cost, schedule, performance); logistics supportability; type of units supported (more is better); multi-functional capability (multi-functional is better than single functional capability); and mobility (for applicable systems). To assist the representatives from the Military Departments in their prioritization efforts, the JPEO-CBD's program managers should support the process by relating program cost, schedule and performance and whether a program is at risk of meeting its acquisition milestones. The DTRA-JSTO should support the Service's voting members by re-certifying the Technology Readiness Level (TRL). By verifying the TRL, the DTRA-JSTO is indicating the program remains relevant within its phase of the acquisition development process.[43]

Once the Service representatives prioritize the current programs in development according to JPL capability area, the JRO will have a prioritized "1-n" list of programs in the acquisition pipeline. This list will more accurately inform future POM development and establish a transparent process so that users understand how money is spent and whether the priorities they established are being recognized. Additionally, the JRO will have a prioritized list of programs to assist them in making decisions on how to apply finite personnel resources against the creation of JCIDS requirements documents which directly support the user's needs.

Prioritizing the material programs in the acquisition pipeline addresses those capabilities with a POM funding line, but does not address the emerging capabilities which have not yet been integrated into JCIDS process. In order to enable the JPL to represent the user's needs, to compel the requirements generation process, and to capture emerging needs, the JRO should collect recommendations for new-start programs every two years from the Combatant Commands and Military Departments. Once the JRO has the new-start nominations, the JRO must compare the nominations against the capability gaps derived from the CBDP CBAs and determine which capability gaps the new programs can resolve. By identifying which CBA gaps the new-start programs resolve, the JRO will be able to group the new start programs by JPL category and arrive at a rank-ordered list of new start submissions. Based on Service interest or expertise, the JRO should gain Service consent to sponsor new-start programs.

Engage the Services in Writing the JCIDS Requirements Documents. By agreeing to sponsor a new start program, the Service is volunteering their combat

developers to write the JCIDS document(s), with JRO sponsorship. Each Service has combat developers who are capable of writing JCIDS documents. The JRO will retain oversight of the program and will forecast the corresponding program costs in their recommendation to ATSD(NCB) for the POM-build. Just as the JRO assigns doctrine development responsibilities, it should assign the Services the task of writing requirements documents to speed up the process. The JRO can chair the JCIDS resolution meetings. By engaging the Services to write JCIDS documents for new-start programs, the JRO will transfer some of the workload and be more able to focus on JCIDS development for programs currently in the acquisition pipeline and concentrate on creating or updating the JCIDS front-end analysis — capabilities based assessments and studies. Services who are not the lead for writing a requirements document for a new-start program should continue to provide Service-annexes to represent their specific Service equities.

Focus on the CBRN JPL in the Annual Report to Congress. One way to enforce a change in elevating the importance of the JPL within the CBDP is to make the JPL the basis for reporting progress in the Annual Report to Congress. The Report should inform Congress on how the CBDP is resolving the Combatant Commands and Service's capability gaps. The ATSD(NCB) should show the CBRN JPL in the report and describe how the JPL drives the requirements process, the acquisition process, the resourcing of the CBDP, and DOTMLPF changes.

Mature USSTRATCOM's Role in the CBRN JPL process. USSTRATCOM continues to evolve its role for the CWMD mission. DoD needs to alter CBDP implementation guidance to acknowledge a USSTRATCOM leadership role in the

CBDP. Not long after the SECDEF assigned USSTRATCOM the role of lead integrator and synchronizer for the CWMD mission, the command decided that an implied task of being the lead Combatant Commander included developing a prioritized list of CWMD gaps/ shortfalls they could use internally in their advocacy efforts. USSTRATCOM collected gaps from various sources and conducted a risk analysis using Defense Planning Scenarios. USSTRATCOM solicited the supporting Combatant Commanders to prioritize the CWMD gaps. USSTRATCOM then produced a Joint Capabilities Document (JCD) which the Force Protection Functional Capabilities Board (FCB) approved in early 2008. The USSTRATCOM sponsored JCD may serve as the document from which an Initial Capabilities Document (ICD) for each of the eight CWMD mission areas can evolve. The ICD describes the capability gap in terms of the functional area, the relevant range of military operations, desired effects, and time.[44] The JRO can develop a passive defense, a consequence management, and a WMD-elimination ICD which will serve as the sponsoring document for virtually any Service written CBDP JCIDS requirements document.

USSTRATCOM is precisely the right organization to collect the user's priorities biennially for the CBDP JPL and, by collecting CBDP priorities; STRATCOM can inform periodic updates to the JCD.

Conclusion

The CBDP is complex and at times may appear to be an inefficient program. In a discussion with COL Mike O'Keefe from the Defense Threat Reduction Agency, Mike jokingly recalled, "The Chemical Biological Defense Program can at times be likened to the *Federalist Papers,*" essays published during the years 1787 and 1788 in several

New York newspapers to persuade voters to ratify the proposed U.S. Constitution. O'Keefe continued, "The Program promotes a degree of dissidence and discourse, but dissidence seems to be more prevalent at times."[45] The CBDP succeeded in eliminating Service funding redundancies while refocusing the cost savings on enhanced CBRN defense readiness. Overall, the CBDP does provide CBRN defense capabilities in support of the national military strategies.

Nevertheless, the CBDP can significantly improve the linkage between the program's JPL and the material programs that eventually enter the acquisition development process. CBRN defense priorities generated by the Combatant Commands and Services should directly compel the requirements generation process, among other select DOTMLPF domains. Additionally, by empowering the Military Departments to write JCIDS requirements documents for new programs, the Joint Requirements Office can focus more on managing the JCIDS process, on developing the front-end analysis required to identify CBRN defense gaps and shortfalls, on formulating the CBDP portion of the POM, on chairing JCIDS resolution meetings, and on supporting the JPEO-CBD's requirements for programs already in the acquisition pipeline. By allowing USSTRATCOM to collect CBRN defense priorities and formulate the JPL using Combatant Command and Service input, the CBDP will empower USSTRATCOM to perform their coordination/ integration role for the particular mission areas of passive defense, consequence management, and WMD-Elimination and, to a degree, WMD-Interdiction — all subordinate mission areas in the *National Military Strategy to Combating WMD*.[46] Finally, the JPL should compel the Annual CBDP

Report to Congress by telling our “civilian masters” what we are doing to directly support the Combatant Commands and Services’ priorities.

Endnotes

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